

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DEC 23 1994

J. H. Cain  
 E. I. du Pont de Nemours and Co., Inc.  
 Barley Mill Plaza, Walker's Mill Bldg. 37  
 Wilmington, DE 19880-0038

Dear Mr. Cain:

Subject: Revised Labeling - Addition of Spray Drift Management  
 DuPont Express Herbicide  
 EPA Registration No. 352-509  
 Your Submission Dated July 6, 1994

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable with the following provisions:

- 1) Add the appropriate Net Contents statement.
- 2) Add the appropriate EPA Establishment Number.

A stamped copy is enclosed for your records. Please submit one (1) final printed copy for the referenced label, incorporating the above changes, before releasing the product for shipment.

Sincerely yours,

Joanne I. Miller  
 Product Manager (23)  
 Fungicide-Herbicide Branch  
 Registration Division (7505C)

Enclosure

DK: 305-7546: FHB/PM23			CONCURRENCES				
SYMBOL	7505C	7505C					
SURNAME	P. KENNY	J. Miller					
DATE	12/23/94	12/23/94					



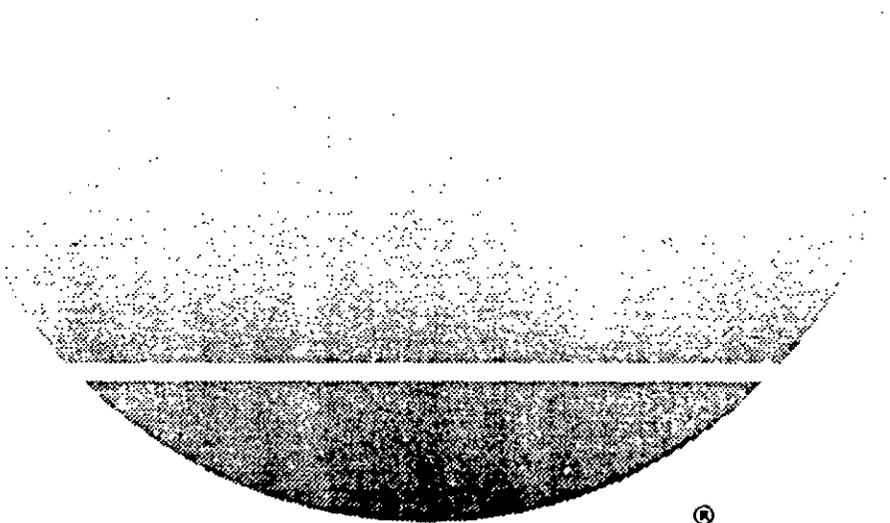
# Express<sup>®</sup>

herbicide

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ACCEPTED  
with COMMENTS  
In EPA Letter Dated

DEC 23 1994  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
352-509



®

*"..... A Growing Partnership With Nature"*

## “EXPRESS” HIGHLIGHTS

- *For selective postemergence broadleaf weed control in Wheat and Barley.*
- *Apply at the rate of 116 to 113 ounce per acre (see Application Information).*
- *Apply after the crop is in the 2-leaf stage, but before the flag leaf is visible.*
- *May be applied by ground or by air.*
- *Use in tank mixtures with other registered herbicides for broader spectrum weed control (see Tank Mixtures).*
- *Can rotate to any crop 60 days after last application.*
- *Consult label text for complete instructions. Always read and follow label “Directions For Use”.*

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# Express®

herbicide

Dry flowable

For Use on Wheat and Barley

Active Ingredient	By Weight
Tribenuron methyl	
Methyl 2-[[[N-(4-methoxy-6-methyl-1,3,5-triazin-2-yl)methylamino]carbonyl]amino]sulfonyl]benzoate	75%
Inert Ingredients	25%
<b>TOTAL</b>	<b>100%</b>

EPA Reg. No. 352-509

U.S. Patents 4,383,113 & 4,740,234

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION!** Avoid contact with skin, eyes and clothing. In case of contact with eyes, immediately flush with plenty of water. Get medical attention if irritation persists. Wash thoroughly after handling.

For medical emergencies involving this product, call toll free 1-800-441-3637.

### PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Waterproof gloves.

Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### USER SAFETY RECOMMENDATIONS

**USERS SHOULD:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

### ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

### IMPORTANT

Injury to or loss of desirable trees or vegetation may result from failure to observe the following:

Do not apply, drain or flush equipment on or near desirable trees or other plants or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.

Do not use on lawns, walks, driveways, tennis courts, or similar areas. Prevent drift of spray to desirable plants.

Injury to or loss of adjacent sensitive crops and vegetation may result from failure to observe the following:

Avoid all direct or indirect (such as spray drift) contact with crops other than wheat or barley.

Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than wheat or barley.

## PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from the well site.
- Make scheduled checks of spray equipment.
- Ensure that all operation employees accurately measure pesticides.
- Mix only enough product for the job at hand.
- Avoid overfilling of spray tank.
- Do not discharge excess material on the soil at a single spot in the field, grove, or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates or uses.
- Avoid storage of pesticides near well sites.
- When triple-rinsing the pesticide container, be sure to add the rinsate to the spray mix.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Waterproof gloves.
- Shoes plus socks.

EXPRESS should be used only in accordance with recommendations on this label or in separately published DuPont recommendations.

DuPont will not be responsible for losses or damages resulting from the use of this product in any manner not specifically recommended by DuPont.

Do not use this product in the following counties of Colorado: Alamosa, Conejos, Costilla, Rio Grande, and Saguache.

Do not apply this product through any type of irrigation system.

## GENERAL INFORMATION

EXPRESS is a dry flowable granule that is used for selective postemergence weed control in wheat (including durum) and barley. The best control is obtained when EXPRESS is applied to young, actively growing weeds. The use rate will depend on weed spectrum and size of weed at time of application. The degree and duration of control may depend on the following:

- weed spectrum and infestation intensity
- weed size at application
- environmental conditions at and following treatment

EXPRESS is noncorrosive, nonflammable, nonvolatile, and does not freeze. EXPRESS should be mixed in water and applied as a uniform broadcast spray.

### ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY

EXPRESS is absorbed primarily through the foliage of plants, rapidly inhibiting the growth of susceptible weeds. One to 3 weeks after application to weeds (2 to 5 weeks for wild garlic), leaves of susceptible plants appear chlorotic, and the growing point subsequently dies.

EXPRESS provides the best control in vigorously growing crops that shade competitive weeds. Weed control in areas of thin crop stand or seeding skips may not be as satisfactory. However, a crop canopy that is too dense at application can intercept spray and reduce weed control.

The herbicidal action of EXPRESS may be affected in crops stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, cultural practices, or variations in crop variety. In warm, moist conditions, the expression of herbicide symptoms is accelerated; in cold, dry conditions, expression of herbicide symptoms is delayed. In addition, weeds hardened-off by drought stress are less susceptible to EXPRESS.

### APPLICATION INFORMATION

Mix the required amount of EXPRESS into the necessary volume of water in the spray tank with the agitator running; add the companion product(s) to the tank after all the EXPRESS is in suspension.

Always mix EXPRESS in water before adding other products to the same spray tank.

Use the spray preparation of EXPRESS within 24 hours to avoid product degradation. If the spray preparation is left standing, agitate it thoroughly before reusing.

### USE RATE

Apply 1/6 to 1/3 oz EXPRESS per acre to wheat (including durum) or barley. Two applications of EXPRESS may be made provided the total amount applied does not exceed 1/3 oz per acre per season.

Use 1/6 to 1/4 oz EXPRESS per acre for light infestation of the weeds listed under Weeds Controlled. Conditions at application should be optimum for effective treatment of these weeds.

Use 1/3 oz EXPRESS per acre for heavy infestation of the weeds listed under Weeds Partially Controlled or when application timing and environmental conditions are marginal (refer to Environmental Conditions and Biological Activity for best performance).

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## APPLICATION TIMING

Apply EXPRESS after the crop is in the 2-leaf stage, but before the flag leaf is visible. Do not harvest within 45 days of the last application.

Since EXPRESS has very little or no soil activity, it controls only those weeds that have germinated; therefore, apply EXPRESS when all or most of the weeds have germinated. Annual broadleaf weeds should be past the cotyledon stage, actively growing, and less than 4" tall or wide. Wild garlic plants should be less than 12" tall with 2" to 4" of new growth. See Specific Weed Problems for more information on Canada thistle, vetch (common, hairy), wild garlic, and wild radish.

Do not apply EXPRESS to stressed crops, as this may cause crop injury. To reduce the potential of crop injury, tank mix EXPRESS with 2,4-D (ester formulations perform best—see Tank Mixtures) and apply after the crop is in the tillering stage of growth.

Rainfall immediately after treatment can wash EXPRESS off of weed foliage, resulting in reduced weed control. Do not apply EXPRESS when rainfall is threatening. Several hours of dry weather are needed to allow EXPRESS to be sufficiently absorbed by weed foliage.

## WEEDS CONTROLLED

EXPRESS effectively controls the following weeds when used according to label directions:

Black mustard	Hairy buttercup
Blue/Purple mustard	Kochia
Bushy wallflower	Mayweed chamomile
/Treacle mustard	Miners lettuce
Coast fiddleneck	Pineappleweed
Common chickweed	Frickly lettuce
Common groundsel	Russian thistle
Common lambsquarters	Slimleaf lambsquarters
Corn spurry	Tarweed fiddleneck
False chamomile	Wild chamomile
Field pennycress	Wild mustard
Flixweed	

## WEEDS PARTIALLY CONTROLLED\*

EXPRESS partially controls the following weeds when used according to label directions:

Annual sowthistle	Redroot pigweed
Canada thistle**	Shepherd's-purse
Common sunflower	Tansymustard
Hairy nightshade	Tumble/Jim Hill mustard
Henbit	Vetch** (common, hairy)
Pennsylvania smartweed	Wild buckwheat
Prostrate knotweed	Wild garlic**
Redmaids	Wild radish**

\* Partially controlled weeds exhibit a visual reduction in numbers as well as a significant loss of vigor. For better results, use 1/4 to 1/3 oz EXPRESS per acre and include a tank-mix partner such as 2,4-D, MCPA, Buctril, or Banvel/Banvel SGF (refer to Tank Mixtures).

\*\* See Specific Weed Problems for more information.

## SURFACTANTS

Unless specified otherwise, add DuPont-authorized, nonionic surfactant having at least 80% active ingredient strength at 0.25% v/v (1 qt per 100 gal of spray solution).

Antifoaming agents may be needed. Consult your Ag dealer, applicator, or DuPont representative for a listing of approved surfactants.

## GROUND APPLICATION

For optimum spray distribution and thorough coverage, use flat-fan or low-volume flood nozzles.

For flat-fan nozzles, use a spray volume of at least 5 gal per acre (GPA).

For flood nozzles on 30" spacings, use at least 10 GPA, flood nozzles no larger than TK 10 (or the equivalent), and a pressure of at least 30 psi. For 40" nozzle spacings, use at least 13 GPA; for 60" spacings use at least 20 GPA. It is essential to overlap the nozzles 100% for all spacings.

Raindrop™ RA™ nozzles are not recommended for EXPRESS applications, as weed control performance may be reduced.

Use screens that are 50-mesh or larger.

## AERIAL APPLICATION

Use nozzle types and arrangements that provide optimum spray distribution and maximum coverage at 1 to 5 GPA. Use at least 3 GPA in Idaho, Oregon, or Utah.

For aerial application in Washington, follow the directions on the Washington Special Local Need label, EXPRESS Herbicide Aerial Application to Wheat and Barley in the State of Washington.

## PRODUCT MEASUREMENT

EXPRESS is measured using the EXPRESS volumetric measuring cylinder. The degree of accuracy of this cylinder varies by ± 7.5%. For more precise measurement, use scales calibrated in ounces.

## RESISTANCE

Biotypes of certain weeds listed on this label are resistant to EXPRESS and other herbicides with the same mode of action,\* even at exaggerated application rates. Biotypes are naturally occurring individuals of a species identical in appearance but with slightly different genetic compositions; the mode of action of a herbicide is the chemical interaction that interrupts a biological process necessary for plant growth and development.

If weed control is unsatisfactory, it may be necessary to respray problem areas using a product with a different mode of action. If resistant weed biotypes such as kochia and Russian thistle are suspected or known to be present, consider using another herbicide treatment or adjust the use rate of the EXPRESS tank-mix partner to help control these biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes.

\* Naturally occurring weed biotypes that are resistant to 2,4-D, ALLY™ Herbicide, DuPont LINESSE™ Herbicide, DuPont GLEAN™ EC Herbicide or DuPont HARMONY™ Extra Herbicide will also be resistant to EXPRESS. In areas where these weed biotypes are known to exist, only spray EXPRESS in tank mixtures with other broadleaf herbicides that have a different mode of action.

## TANK MIXTURES

### *With 2,4-D (amine or ester) or MCPA (amine or ester)*

EXPRESS may be tank mixed with 2,4-D and MCPA (preferably ester formulations) herbicides for use on wheat and barley. For best results, add 2,4-D or MCPA herbicides to the tank at 1/8 to 3/8 lb active ingredient. Surfactant may be added to the mixture at 1 to 2 pt per 100 gal of spray volume; however, adding surfactant may increase the potential for crop injury. In tank mixes containing 1/8 lb active ingredient 2,4-D or MCPA per acre, add 1 to 2 pt of surfactant; in tank mixes containing 1/4 to 3/8 lb active ingredient 2,4-D or MCPA per acre, add 1 pt of surfactant. Higher rates of 2,4-D or MCPA may be used, but do not exceed the highest rate allowed by those respective labels.

Always mix EXPRESS in water prior to adding 2,4-D or MCPA and add the surfactant last. Read and follow all label instructions on timing, precautions, and warnings for these herbicides before using these tank mixtures.

### *With Other Herbicides*

EXPRESS may be tank mixed with other suitable registered herbicides (such as DuPont Lexone® DF Herbicide\*, "Banvel"/"Banvel SGF"\*\*, "Buctril", and Bronate') to control weeds listed under Weeds Partially Controlled, weeds resistant to EXPRESS, or weeds other than those listed under Weeds Controlled. Read and follow all manufacturer's label recommendations for the companion herbicide. If these recommendations conflict with this label, do not tank mix the herbicide with EXPRESS.

\* Tank mixes of EXPRESS plus metribuzin may result in reduced control of wild garlic.

\*\* Tank mixes of EXPRESS plus "Banvel"/"Banvel SGF" may result in reduced control of some broadleaf weeds.

Used alone, EXPRESS will not control wild oat or other grasses. To control wild oat, tank mix EXPRESS with Avenge\* or Assert\*. When tank mixing EXPRESS with "Assert", always include another broadleaf weed herbicide with a different mode of action (for example: 2,4-D ester, MCPA ester, "Buctril," or "Bronate"). Tank-mixed applications of EXPRESS plus "Assert" may cause temporary crop discoloration, stunting, or injury when heavy rainfall occurs shortly after application. Do not tank mix EXPRESS with Hoelon® 3EC, as grass control may be reduced.

### *With Insecticides*

EXPRESS may be tank mixed or used sequentially with insecticides registered for use on cereal grains. However, under certain conditions (drought stress, or if the crop is in the 2-4 leaf stage), tank mixes or sequential applications of EXPRESS with organophosphate insecticides (such as parathion) may produce temporary crop yellowing or, in severe cases, crop injury. Test these mixtures in a small area before treating large areas.

Do not use EXPRESS plus Malathion, as crop injury will result.

The use of EXPRESS in a tank mix with Lorsban® 4E-SG is recommended only in Colorado, Idaho, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, Utah, Washington, and Wyoming.

### *With Liquid Nitrogen Solution Fertilizer*

EXPRESS may be added directly to liquid nitrogen solutions (e.g., 28-0-0, 32-0-0). Ensure that the agitator is running while the EXPRESS is added. Use 0.06 - 0.25% v/v surfactant (1/2 pt - 1 qt per 100 gal of spray solution). Use of this mixture may result in temporary crop yellowing and stunting.

Do not use liquid fertilizer as a substitute for a surfactant.

### *With Other Fertilizer Solutions*

Do not use EXPRESS in liquid fertilizer solutions having a pH of less than 3.0. Conduct a tank mix compatibility test before mixing EXPRESS in a fertilizer solution. For fertilizer solutions that contain ingredients other than nitrogen (such as 10-34-0), slurry the desired amount of EXPRESS in a clean bucket with water until a flowable mixture is produced. Add this slurry to the agitating spray tank containing the liquid nitrogen fertilizer solution. Thoroughly rinse all of the EXPRESS slurry into the spray tank. When including 2,4-D in an EXPRESS and liquid fertilizer mixture, use an ester formulation for best results.

Note: Liquid fertilizers are significantly heavier than water per gal of liquid; therefore, to maintain proper spray volumes, adjust the nozzle type and nozzle pressure as necessary. Consult fertilizer solution suppliers and/or spraying systems company catalogs to determine the appropriate spray nozzles.

## SPECIFIC WEED PROBLEMS

**Canada thistle:** For best results, apply 1/3 oz per acre plus surfactant when all thistles are 4" to 8" with 2" to 6" of new growth. Make the application in the spring.

**Vetch (common and hairy):** For best results, apply 1/4 to 1/3 oz of EXPRESS per acre plus surfactant when vetch is less than 6" in length. For severe infestations of vetch, or when vetch is greater than 6" in length, apply EXPRESS in combination with 2,4-D or MCPA (refer to the Tank Mixtures section of this label).

**Wild garlic:** For best results, apply 1/3 oz EXPRESS per acre plus surfactant when wild garlic plants are less than 12" tall with 2" to 4" of new growth. Plants hardened-off by cold weather and/or drought stress may be more difficult to control. Thorough spray coverage of all garlic plants is essential. Typical symptoms of dying garlic plants may not be noticeable for 2 to 5 weeks.

**Wild radish:** For best results, apply 1/3 oz EXPRESS per acre plus surfactant to wild radish rosettes less than 6" in diameter. Make the application either in the fall or spring. Applications made later than 30 days after weed emergence will result in partial control. Fall applications should be made before plants harden-off.

## CROP ROTATION

Any crop may be planted 60 days after the application of EXPRESS.

## GRAZING

Do not graze livestock in treated areas. In addition, do not feed forage or hay from treated areas to livestock (harvested straw may be used for bedding and/or feed).

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## SPRAY EQUIPMENT

For specific application equipment, refer to the manufacturer's recommendations for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc.

Be sure to calibrate air or ground equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when crop canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping, to avoid injury to the crop.

Do not make applications using equipment and/or spray volumes, or during weather conditions, that might cause spray to drift onto nontarget sites. For additional information on spray drift refer to Spray Drift Management section of label.

Continuous agitation is required to keep EXPRESS in suspension.

## SPRAYER CLEANUP

The spray equipment must be cleaned before EXPRESS is sprayed. Follow the cleanup procedures specified on the labels of the previously applied products. If no directions are provided, follow the six steps outlined in After Spraying EXPRESS.

### AT THE END OF THE DAY

When multiple loads of EXPRESS herbicide are applied, it is recommended that at the end of each day of spraying, the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits which can accumulate in the application equipment.

### AFTER SPRAYING EXPRESS AND BEFORE SPRAYING CROPS OTHER THAN WHEAT AND BARLEY

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of EXPRESS as follows:

1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and 1 gal of household ammonia\* (contains 3% active) for every 100 gal of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 min. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Rinse the tank, boom, and hoses with clean water.
6. Dispose of the rinsate on site or at an approved waste disposal facility.

\* Equivalent amounts of an alternate strength ammonia solution or a DuPont approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your Ag dealer, applicator, or DuPont representative for a listing of approved cleaners.

## Notes:

1. **CAUTION:** Do not use chlorine bleach with ammonia as dangerous gases will form. Do not clean equipment in an enclosed area.
2. Steam-cleaning aerial spray tanks is recommended prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
3. When EXPRESS is tank mixed with other pesticides, all cleanout procedures should be examined and the most rigorous procedure should be followed.
4. In addition to this cleanout procedure, all precleanout guidelines on subsequently applied products should be followed as per the individual labels.
5. Where routine spraying practices include shared equipment frequently being switched between applications of EXPRESS and applications of other pesticides to EXPRESS-sensitive crops during the same spray season, it is recommended that a sprayer be dedicated to EXPRESS to further reduce the chance of crop injury.
6. Since the presence of tank-mix partners can interfere with the dispersion of EXPRESS when multiple tank loads of the same mix are being prepared, pre-slurry EXPRESS in a dedicated container of clean water prior to adding to the tank.

## SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

### AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

### IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets (>150 - 200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. **APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS!** See **Wind, Temperature and Humidity, and Temperature Inversions** sections of this label.

### Controlling Droplet Size - General Techniques

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. **WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.**
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles.

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### **Controlling Droplet Size - Aircraft**

- **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- **Nozzle Type** - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- **Boom Length** - The boom length should not exceed 3/4 of the wing or rotor length - longer booms increase drift potential.
- **Application Height** - Application more than 10 ft above the canopy increases the potential for spray drift.

### **BOOM HEIGHT**

Setting the boom at the lowest referenced height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

### **WIND**

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. **AVOID GUSTY AND WINDLESS CONDITIONS.**

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

### **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

### **AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS**

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring.

**Note:** Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the spray equipment section of this label to determine if use of an air assist sprayer is recommended.

### **PRECAUTIONS**

Do not graze treated fields or feed treated forage or hay (harvested straw may be used for bedding and/or feed).

Do not rotate to crops other than wheat or barley for 60 days after application.

Varieties of wheat (including durum) and barley differ in their tolerance to herbicides. When using EXPRESS on a particular variety for the first time, limit initial use to one 10-oz container. If no symptoms of crop injury occur within 14 days after treatment, the balance of acreage can be treated.

Do not apply EXPRESS to wheat or barley under stress from abnormal weather or growing conditions, drought, disease, or insect damage, as crop injury may result. Abnormal weather conditions (e.g., prolonged weather of less than 50 °F, extreme day and night temperature fluctuations, etc.) just prior to or soon after treatment may result in crop injury. Risk of injury is greatest when crop is in the 2- to 5-leaf stage.

Do not apply to wheat or barley crops underseeded with another crop.

Dry, dusty field conditions may result in reduced control in wheel track areas.

### **STORAGE AND DISPOSAL**

**Storage:** Store the product in original container only. Do not contaminate water, other pesticides, fertilizer, food, or feed in storage.

**Product Disposal:** Do not contaminate water, food, or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Disposal:** Triple rinse (or equivalent) the container. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**NOTICE TO BUYER:** Purchase of this material does not confer any rights under patents of countries outside of the United States. Use of this quantity of purchased EXPRESS is permitted under claim 24 of U.S. Patent 5,084,082

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... thereof and is  
... purposes stated on such label only  
... used in accordance with directions under normal  
use conditions. It is impossible to eliminate all risks  
inherently associated with the use of this product. Crop  
injury, ineffectiveness, or other unintended  
consequences may result because of such factors as  
weather conditions, presence of other materials, or the  
manner of use or application, all of which are beyond  
the control of Du Pont. In no case shall Du Pont be  
liable for consequential, special or indirect damages  
resulting from the use or handling of this product. All  
such risks shall be assumed by the buyer. DU PONT  
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